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"HORSE-NETTLE" IN THE TREATMENT OF EPILEPSY.

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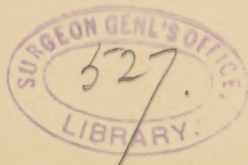
BY E. D. BONDURANT, M.D.,
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THE common "bull-nettle" or "horse-nettle" (*Solanum Carolinense*, L.) has been recently brought forward as an antispasmodic of value in convulsive affections, such as epilepsy, chorea, puerperal eclampsia, etc., and "especially in epilepsy. Many cases that have resisted all other remedies have been either cured or greatly benefited by this," we are told. The preparations thus far put on the market by several manufacturing houses are in the form of a "succus" or fluid extract of the fresh nettle-berries. Favorable reports of the action of the drug have already appeared in several of the medical periodicals.

During the past five months this new candidate for consideration has been given a trial in the treatment of epileptic insane patients in the wards of the Alabama Insane Hospital, the particular preparation employed being the "Fluid Extract of Horse-Nettle," of Parke, Davis & Co., of Detroit.

The results in eleven cases are appended. All of the patients have been under daily observation for some time, most of them for a term of years, and the general character of each case, as well as the reaction of the patients to many other antiepileptic agents, is fully known.

CASE I.—A female, white, fourteen years old, has had



attacks of *grand mal* since her seventh year, numbering from one to five per month ; aside from her epilepsy she is in very good bodily health, and shows but little mental impairment. The bromids, acetanilid, antipyrin, and β -naphthol have in the past seemed to exert a temporarily favorable influence. For six weeks she received no medicines whatever, had but two convulsions and was in good condition, mental and physical, during the time ; she was then given rhei et sodii comp., 5 c.c., t. i. d., for three days, then β -naphthol, 0.3 grm., t. i. d., for seven days, and she still had no convulsions ; she was then ordered fld. ext. of horse-nettle, 3 c.c., t. i. d. During the next seven days she had sixteen fits, all severe, and her mental state became worse, and she lost noticeably in weight. The horse-nettle was then discontinued ; during the two succeeding days she had no convulsions ; then in four days she had sixteen fits ; after this in twenty-nine days she had six seizures, then ran nearly a month without an attack, having taken no medicine since the nettle was discontinued. The drug seems in this case to have exerted an injurious rather than a beneficial influence.

CASE II.—A male, white, aged forty years, has been an epileptic since he was four years old. He is of unstable nervous organization, and for six years past—since his thirty-fourth year—has been regarded as insane. Mental deterioration is now well marked and slowly advancing. The fits are usually severe and mostly diurnal ; on the average there will be about one-hundred convulsions a year. Most antiepileptic treatment is without effect, but chloral and the bromids measurably control the occurrence of the spasms.

He was three months without treatment ; the first two months he had nine fits, the third month twenty. He was then placed on fld. ext. of horse-nettle, 2 c.c., t. i. d. During the succeeding two weeks he had four fits only ; the dose was increased to 4 c.c., t. i. d., and during the next two weeks he had nine fits ; the medicine was then

stopped; during the next thirty days he had twenty-five convulsions. It will be noted that while the number of convulsions occurring during the period of administration of the nettle is less than the number during the preceding and succeeding period of equal length, the number of fits is not less than it was during a portion of the time when the patient was receiving no medicinal treatment.

CASE III.—A male, white, aged twenty-two years, has had convulsions since infancy, and is of a low order of intelligence. Attacks of *grand mal* occur at the rate of from five to eight per month.

For thirty days when he was without treatment he had seven convulsions. R. Fld. ext. of horse-nettle, 2 c.c., t. i. d.; after fifteen days the dose was increased to 4 c.c., and after two weeks the medicine was discontinued. During the thirty days the nettle was given, five fits occurred; during the thirty days following its discontinuance he had eighteen fits; after this the number sank to the usual, from five to eight per month.

CASE IV.—The patient was a female, white, thirty-nine years old, constituting a long-standing case of chronic epilepsy, with much impairment of intelligence and occasional periods of maniacal excitement. The attacks occur in groups of from five to ten at irregular intervals, are severe, and occur both by day and by night. In the course of a year she will have from fifty to sixty seizures.

She was thirty days without medicines and without a convulsion. R. Fld. ext. of horse-nettle, 2.5 c.c., t. i. d., continued twenty-four days, followed by no convulsions. So soon as the drug was withdrawn the fits commenced, and in fourteen days the patient had twenty-two severe seizures, grew very confused and imbecile; she gradually regained her former status, and for six weeks had no attack. Chloral has given good results in this case.

CASE V.—The patient was a white female, forty-eight years old, who had had epileptic seizures, *grand mal*,

since her fifteenth year, with general mental enfeeblement. Convulsions rarely occur at night. She has from three to six fits per month. The number has been for a time materially diminished by acetanilid, borax, and the bromids.

She was twenty days under no treatment and free from convulsions; she was then given fld. ext. of horse-nettle, 3 c.c., t. i. d., for thirty days, having six spasms during this time; the drug was discontinued; in the following thirty days four spells occurred. The nettle seemed entirely without effect of any kind.

CASE VI.—The patient was a white woman, thirty-eight years of age, who has had nocturnal attacks of *grand mal* since infancy; she is weak-minded, hysteric, and generally unstable. She will pass from one to three months without an attack; then for a month or more will have from one to fifteen seizures every night. No drugs—bromids, chloral, coal-tar derivatives, β -naphthol, borax, etc.—have been found of any value in this case.

In eighteen successive nights she had altogether eighty-seven fits; fld. ext. of horse-nettle was then given, first, 2.5 c.c., then 3.5 c.c. four times a day and continued two weeks; during this time she had eighty-two convulsions. After the drug was withdrawn the number of convulsions gradually diminished; they ceased entirely after five weeks, and then, as usual, she went on nearly two months without an attack.

CASE VII.—A woman, white, twenty-seven years old, has had attacks of both *grand* and *petit mal* since infancy. There is much mental impairment. During three months she had forty-two convulsions, most of them of brief duration, and some with only transient loss of consciousness. She was given fld. ext. of horse-nettle, 2.5 c.c., t. i. d., for twenty days, having during this time fourteen seizures; during the thirty days succeeding the withdrawal of the drug eight fits occurred.

The nettle exerted no apparent influence. This case has been favorably affected by antipyrin and β -naphthol.

CASE VIII.—The patient was a female, white, aged twenty-six years, an epileptic imbecile. She has had during twelve months about one-hundred seizures.

In three months, during which she took no medicines, she had twenty-two fits. She was given fld. ext. of horse-nettle, 3.5 c.c., t. i. d. In the twenty-eight days the nettle was continued she had eighteen convulsions; the drug was then discontinued, and during the next thirty days she had sixteen spasms, and during the next thirty days nine only. If the nettle exerted any influence at all, it increased the number of the attacks. The bromids in this case have almost always reduced the number of convulsions.

CASE IX.—A man, white, thirty years old, had his first epileptic convulsion about eight years ago; since then attacks have occurred frequently, and are severe, *grand mal*, always; from fifteen to twenty per month is about their average number. His mental faculties have undergone rapid deterioration, and he is now very dull, sluggish, and feeble-minded. A great many different antispasmodics have been tried in this case without visible benefit.

For six weeks he took no medicines of any kind and had twenty-two fits during this time; he was then given fld. ext. of horse-nettle, 2 c.c., t. i. d., increased after two weeks to 4 c.c., t. i. d., which two weeks later was discontinued; during the first two weeks of treatment he had twelve seizures; during the next two weeks, taking twice the quantity of the drug, he had eleven attacks. After the medicine was discontinued the fits occurred at about their usual rate of from fifteen to twenty per month.

CASE X.—A white imbecile female, thirty-six years old, has averaged from three to five fits per month since infancy. The convulsions have been temporarily re-

duced in number by borax, coal-tar derivatives, and the bromids.

She was two months without medicine and had five spells only, none occurring during the last twenty-six days of the time. She was then given fld. ext. of horse-nettle, 3 c.c., t. i. d., and in the fourteen days the drug was continued she had six convulsions—a greater number than during any period of equal length within more than three years. In the six weeks following the withdrawal of the nettle she had five attacks.

CASE XI.—A female, white, aged forty-six years, an epileptic since infancy, is very weak-minded and dull. For some years past she has had from one to two convulsions in each thirty days, this period of time rarely passing without a seizure, except when antiepileptic drugs, bromids, acetanilid, β -naphthol, were given, when on one occasion nearly five months elapsed without a seizure.

For six weeks she was without treatment and had one convulsion; for fourteen days she took fld. ext. of horse-nettle, 2.5 c.c., t. i. d., with two convulsions; during the two months succeeding cessation of treatment she had three convulsions.

The results, it will be seen, are not encouraging. In cases V, VI, VII, and XI no visible effect was produced; in cases I, VIII, IX, and X there was an apparent *increase* in the number of convulsions during the time of treatment, and in three cases, II, III, and IV, while little or no effect was observed during the time of administration, there was a marked increase in the number of fits during several weeks following the stoppage of the medicine. The drug seemed well borne in every instance, and no complications or unfavorable symptoms (save the increase in the convulsions in the cases enumerated) were noted in any case. No one of the patients was in mental condition or in general bodily state benefited in the least. Of course, the class of

patients under treatment exhibit epilepsy in its most unfavorable form ; probably no case of chronic epilepsy with insanity can be cured or permanently benefited by any treatment with any drugs yet known ; nevertheless many of these cases—most of them—are temporarily benefited—*i. e.*, the fits are reduced in number by not a few of the better known antiepileptic remedies. The usual rule is that the administration of any new remedy, often any change in treatment, is for a short time attended by a reduction in the number of convulsions ; many drugs have in this way given us at first very gratifying results, only to prove, after longer experience, disappointing. Scarcely any line of treatment heretofore employed, however, has given such uniformly unfavorable results as has the use of the horse-nettle. It is possible that in the treatment of a less unfavorable class of patients the results might prove more encouraging.

The nettle belongs to the belladonna family, and probably possesses some of the virtues of its better known relative. Belladonna itself, however, has in the treatment of cases of epilepsy among the insane given results scarcely more favorable than those here reported.

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